KARNATAKA TEST HOUSE PVT. LTD.

MATERIAL TESTING LABORATORY

778/44, Gokul 1st Stage, 2nd Phase, 8th Cross, Triveni Road,
Yeshwanthpur, Bangalore - 560 054.
Tel.: 23378383 Telefax : 23375326, E-mail : kthblr@gmail.com Website : www.karnatakatesthouse.com

Report No. : KTH/C.AGG/1552-2557/2013-2014 **Date: 15.10.2013**

TEST REPORT ON AGGREGATE
(Coarse Aggregate)

Name of the Customer* : **The Assistant Executive Engineer,**
Kodigehalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Improvements to Concrete road and drains at Byatarayanapura in Ward No.07.

Name of Contractor* : Mr.B R Dhananjaya, Bangalore.

Source of Sample : Supplied by the Customer.

Sample Received on : 10.10.2013.

Technical Reference : IS : 2386 Part I to VIII– 1963 (Reaffirmed-2002), IS : 383 – 1970.

Sieve Analysis of Coarse Aggregate - 40mm & down size

Sl. No.	Sieve size mm	% Passing	IS : 383-1970 Stipulations		Remarks
			Single Size	Graded Size	
1	63	100	100	100	Sample confirms to Single Size for IS: Stipulation of 40mm size Aggregate
2	40	87.9	85 to 100	95 to 100	
3	20	13.8	0 to 20	30 to 70	
4	12.5	-	0 to 20	-	
5	10	-	0 to 5	10 to 35	
6	4.75	-	-	0 to 5	

Sl. No.	Test Conducted	Identification mm	Results	IS : 383 – 1970 Stipulations
1	Flakiness Index (%)	40	12.12	Not specified
2	Elongation Index (%)	40	16.09	Not specified
3	Impact Value (%)	40	22.82	Shall not be more than 45% for Concrete and 30% for Wearing surfaces, such as runways, roads and pavements.

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

(SREENIVASA.C)
TECHNICAL MANAGER

Note : 1) This report is not to be reproduced except in full without our prior permission in writing.
2) The results listed refer only to the tested samples and applicable parameters.

KARNATAKA TEST HOUSE PVT. LTD.

MATERIAL TESTING LABORATORY

778/44, Gokul 1st Stage, 2nd Phase, 8th Cross, Triveni Road,
Yeshwanthpur, Bangalore - 560 054.

Tel.: 23378383 Telefax : 23375326, E-mail : kthblr@gmail.com Website : www.karnatakatesthouse.com

Report No. : KTH/F.AGG/1552-2558/2013-2014 **Date: 15.10.2013**

TEST REPORT ON AGGREGATE

(Fine Aggregate)

Name of the Customer* : **The Assistant Executive Engineer,**
Kodigehalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Improvements to Concrete road and drains at Byatarayanapura in Ward No.07.

Name of Contractor* : Mr.B R Dhananjaya, Bangalore.

Source of Sample : Supplied by the Customer.

Sample Received on : 10.10.2013.

Technical Reference : IS : 2386 Part I to VIII– 1963 (Reaffirmed-2002), IS : 383 – 1970.

Sieve Analysis of Fine Aggregate (River Sand)

Sl. No.	Sieve size mm	% Passing	IS : 383 – 1970 Specification				Remarks
			% passing for Zone I	% passing for Zone II	% passing for Zone III	% Passing for Zone IV	
1	10	100	100	100	100	100	Falls in Zone –II as per table 4 of IS-383 – 1970.
2	4.75	94.8	90 – 100	90 – 100	90 – 100	95 - 100	
3	2.36	78.4	60 – 95	75 – 100	85 – 100	95 - 100	
4	1.18	60.9	30 – 70	55 – 90	75 – 100	90 - 100	
5	0.600	39.8	15 – 34	35 – 59	60 – 79	80 - 100	
6	0.300	11.4	5 – 20	8 – 30	12 – 40	15 to 50	
7	0.150	2.6	0 – 10	0 – 10	0 – 10	0 to 15	

Sl. No.	Test Conducted	Results	IS : 383 – 1970 Stipulations
1.	Silt Content (%)	2.51	-

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

(SREENIVASA.C)
TECHNICAL MANAGER

Note : 1) This report is not to be reproduced except in full without our prior permission in writing.
2) The results listed refer only to the tested samples and applicable parameters.

KARNATAKA TEST HOUSE PVT. LTD.

MATERIAL TESTING LABORATORY

778/44, Gokul 1st Stage, 2nd Phase, 8th Cross, Triveni Road,
Yeshwanthpur, Bangalore - 560 054.
Tel.: 23378383 Telefax : 23375326, E-mail : kthblr@gmail.com Website : www.karnatakatesthouse.com

Report No. : KTH/ CEMENT /1552-2559/2013-2014 **Date: 19.10.2013**

PHYSICAL TEST REPORT ON CEMENT

Interim 3 & 7 days

Name of the Customer* : **The Assistant Executive Engineer,**
Kodigehalli Sub Division,
BBMP, Bangalore.

Name of the Project* : Improvements to Concrete road and drains at Byatarayanapura in Ward No.07.

Name of Contractor* : Mr.B R Dhananjaya, Bangalore.

Source of Sample : Supplied by the Customer.

Type of Cement* : Ordinary Portland cement (OPC)

Brand of Cement* : Birla Super 53 Grade.

Sample Received on : 10.10.2013.

Period of Test : 11.10.2013 to 18.10.2013.

Technical Reference : IS: 4031(Part I–VI) 1988 (Reaffirmed–2000) & IS: 12269-1987.

Sl. No.	Test Conducted	Results	IS : 12269-1987 Stipulation	Remarks
1	Normal consistency	29.5 %	Not specified	-
2	Initial setting time	179 minutes	Shall not be less than 30 minutes	P
3	Final setting time	254 minutes	Shall not be more than 600 minutes	P
4	Compressive strength (Average of three results) a. 72 ± 1h (3 days) b.168 ± 2h (7 days) c. 672 ± 4h (28 days)	 28.81 MPa 39.50 MPa T.T.C	 Shall not be less than 27.0 MPa Shall not be less than 37.0 MPa Shall not be less than 53.0 MPa	 P P -
5	Fineness (By Blaine's air permeability method)	332.51 m^2/kg	Shall not be less than 225 m^2/kg	P
6	Soundness (Le-chatlier's method)	0.98 mm	Shall not be more than 10 mm	P

P: Passes IS requirement F: Fails IS requirement T.T.C: Test To be Conducted.

*As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

AC-07

(SREENIVASA.C.)
TECHNICAL MANAGER

Note : 1) This report is not to be reproduced except in full without our prior permission in writing.
2) The results listed refer only to the tested samples and applicable parameters.

KARNATAKA TEST HOUSE PVT. LTD.

MATERIAL TESTING LABORATORY

778/44, Gokul 1st Stage, 2nd Phase, 8th Cross, Triveni Road,
Yeshwanthpur, Bangalore - 560 054.
Tel.: 23378383 Telefax : 23375326, E-mail : kthblr@gmail.com Website : www.karnatakatesthouse.com

Report No.: KTH/ST/1552-2560/2013-2014 **Date: 15.10.2013**

TEST REPORT ON STEEL BARS

Name of the Customer*	:	**The Assistant Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Name of the Project*	:	Improvements to Concrete road and drains at Byatarayanapura in Ward No.07.
Name of Contractor*	:	Mr.B R Dhananjaya, Bangalore.
Source of Sample	:	Supplied by the Customer.
Sample Received on	:	10.10.2013.
Nature of Sample*	:	Reinforcement steel – 10mm.
Technical Reference	:	Tensile IS: 1786 – 2008 & IS: 1608–1995 (Reaffirmed–2000) Bend & Re-bend IS: 1786 – 2008 & IS: 1599 - 1985 (Reaffirmed–2000)
Grade of Steel*	:	Fe-415.

TENSILE TEST :

Dia (mm)	**10**	**Limits as per IS : 1786-2008, Gr. Fe 415**
Weight / unit length (kg/m)	0.595	10mm – 0.574 Min
Yield Stress (N/mm^2)	509.55	415 Min
Tensile Strength (N/mm^2)	598.73	10% More than actual 0.2% proof stress but not less than 485 N/mm^2
% Elongation (on 5.65 $\sqrt{A}$G.L)	20.0	14.5 Min.

BEND TEST:

Sl. No.	*Dia (mm)*	*Mandrel diameter*	*Observations*
1.	10	3 dia	No cracks observed. Passes the test.

REBEND TEST:

Sl. No.	*Dia (mm)*	*Mandrel diameter*	*Observations*
1.	10	5 dia	No cracks observed. Passes the test.

* As furnished by the Customer

For **KARNATAKA TEST HOUSE PVT. LTD.**

AG-07

(SREENIVASA.C.)
TECHNICAL MANAGER

Note : 1) This report is not to be reproduced except in full without our prior permission in writing.
2) The results listed refer only to the tested samples and applicable parameters.

KARNATAKA TEST HOUSE PVT. LTD.

No.778/44, 8th Cross, Triveni Road, Gokul 1st Stage, 2nd Phase, Bangalore – 560 054.
Tele Fax : 23378383 / 23375326.
E-Mail : kthblr@gmail.com Web Site : www.karnatakatesthouse.com

Report No. : KTH/CT/1552-2561/2013-2014 **Date: 25.10.2013**

TEST REPORT ON CONCRETE CUBES

To,

The Assistant Executive Engineer,
Kodigehalli Sub Division,
BBMP Bangalore.

Name of the Project*: - Improvements to Concrete road and drains at Byatarayanapura in Ward No.07.

Name of the Contractor* : Mr.B R Dhananjaya, Bangalore.

Sample Received on: 23.10.2013

Compressive Strength test as per IS: 516-1959 (Reaffirmed 1999) has been conducted on the concrete cube specimens, supplied by the Customer and the results are tabulated here below:

Dimension of Specimen: 150mmx150mmx150mm

Sl. No	Cubes pertaining to the concrete cast at*(Details of structural member identification)	Grade of Concrete*	Date of casting*	Date of Testing	Age of Concrete on the date of test**	Contact area (mm^2)	Weight of Specimen (Kg)	Load in KN	Compressive Strength in N/mm^2
1.	Road Concrete	M_{20}	17.10.2013	24.10.2013	7 days	22500	8.180	439	19.51
2.	"	"	"	"	"	"	8.200	397	17.64
3.	"	"	"	"	"	"	8.170	426	18.93

1 N/Sq.mm = 10Kg/Sq.cm.(Approx.)
*As Furnished by the Customer
**Based on the data furnished by the Customer
Note: A minimum of three cube specimens shall be supplied for testing as per IS:516-1959.

KARNATAKA TEST HOUSE PVT. LTD. BANGALORE-54

for KARNATAKA TEST HOUSE PVT. LTD.

(SREENIVASA.C.)
TECHNICAL MANAGER

Note : 1) This report is not to be reproduced except in full without our prior permission in writing. 2) The results listed refer only to the tested samples and applicable parameters.